

IN THE SPECIFICATION:

Page 1, paragraph 1, line 13-16 should read:

The present invention relates to immunoreactive peptides that are homologous with the region of amino acid positions 12 to 235 (SEQ ID NO: 7) of the varicella zoster virus protein VP26, to nucleic acids which encode these peptides and to the use of the peptides and nucleic acids for diagnosing an infection with varicella zoster virus.

Page 3, paragraph 3, lines 9-15 should read:

Figures 1(a), 1(b) and 1(c) depict a nucleotide sequence (SEQ ID NOS 1 and 2) that corresponds with amino acid residues 1-235 of VP26 (ORF23) (Ellen strain). This contains a total of 235 AA and has a theoretical molecular weight of 24.4 kDa. The region in bold corresponds to an AA 12 – 235 (SEQ. ID NO. 7) VP26\* immunoreactive fragment having a total of 224 amino acids and a theoretical molecular weight of 23 kDa. The rhombus (#) symbolizes a stop codon. The numbering of the amino acids begins with a methionine start codon of the published ORF23 sequence (A.J. Davison & J.E. Scott. (1986), J. Gen. Virol. 67, 1759-1816) as shown in this Figure.-- paragraph 3, delete paragraph and insert --Figures 1(a), 1(b) and 1(c) depict a nucleotide sequence (SEQ ID NOS 1 and 2) that corresponds with amino acid residues 1-235 of VP26 (ORF23) (Ellen strain). This contains a total of 235 AA and has a theoretical molecular weight of 24.4 kDa. The region in bold corresponds to an AA 12 – 235 (SEQ. ID NO. 7) VP26\* immunoreactive fragment having a total of 224 amino acids and a theoretical molecular weight of 23 kDa. The rhombus (#) symbolizes a stop codon. The numbering of the

amino acids begins with a methionine start codon of the published ORF23 sequence (A.J. Davison & J.E. Scott. (1986), J. Gen. Virol. 67, 1759-1816) as shown in this Figure.

Page 3, paragraph 2 should read:

In one embodiment of the invention, an immunoreactive peptide is provided which is homologous with the AA 12 (SEQ ID NO: 7) to 235 region of VZV VP26. In another embodiment, a nucleic acid is provided which hybridizes under stringent conditions with a nucleic acid that encodes an immunoreactive peptide that is homologous with the AA 12 to 235 region (SEQ ID NO: 7) of VZV VP26 wherein the peptide is recognized by antibodies directed against VZV but not recognized by antibodies which are directed against other herpes-viruses. In yet another embodiment, an immunochemical method is provided for detecting antibodies against VZV in a sample, comprising the step (a) contacting an immunoreactive peptide as described in claim 1 with the sample and (b) determining binding between antibody in the sample and the peptide. Another embodiment of the invention is a method for detecting VZV from a sample comprising the steps of contacting a nucleic acid as described above with the sample to allow hybridization of the nucleic acid, and determining the presence of nucleic acid hybrid formed. Yet another embodiment is a test kit for detecting antibodies against VZV, which comprises an immunoreactive peptide as described above or a nucleic acid which codes for such an immunoreactive peptide.

Pages 4-5, paragraph 8, lines 1-3 through 1-11 should read:

The present invention consequently relates to an immunoreactive peptide (a peptide that cross-reacts with antibody specific to VP26) that is homologous with the AA 12 to 235 (SEQ ID

NO: 7) region of VZV VP26 or which essentially comprises the amino acids 12 to 235 (SEQ ID NO: 7) region of VP26. By "essentially comprises the amino acids 12 to 235 (SEQ ID NO: 7) region of VP26" is meant a homologous portion of this region that maintains an epitope of the the VP26, as easily determined by cross-reactivity with antibody against VP26. The term "essentially" refers to the fact that the entire region is not required for an epitopic structure and in fact, the skilled artisan readily appreciates that peptides as short as 10 amino acids long can be selected, based on the information provided by the specification, that can work according to the invention. In one embodiment according to this definition, a homologous portion is less than the total region but greater than 10 amino acids long, which is sufficient to form an epitope characteristic of this region. In another embodiment, the homologous portion is between 10 and 26 amino acids long. In yet another embodiment, the homologous portion is between 26 and 50 amino acids long. In yet another embodiment the homologous portion is between 50 and 223 amino acids long.

Page 6, paragraph 2, lines 7-18 should read:

The invention also relates to immunoreactive peptides that can be prepared by expressing nucleic acid having the sequence depicted in FIG. 1 or one of the above-mentioned nucleic acids which hybridizes under stringent conditions, wherein all of the expressed peptides are recognized by antibodies which are directed against VZV but not by antibodies which are directed against other herpesviruses. In particular, the invention particularly relates to peptides that comprise the AA 12 to 235 (SEQ ID NO: 7) region of VZV VP26. Moreover, peptides which "essentially comprise" this region are included, as this term, as used herein, means peptides that include antigenically similar sequences to the AA12 to 235 (SEQ ID NO: 7) region

described herein. Of course, peptides that comprise this region, with only conservative amino acid changes, (basic for basic, neutral hydrophilic for neutral hydrophilic etc. as is known to the skilled artisan) also are useful and are contemplated for the invention.

Page 7, paragraph 1, lines 1-27 should read:

In order to locate diagnostically utilizable immunoreactive regions, immunoreactive proteins of VZV were identified by immunoscreening a VZV genomic library. For this, a VZV genomic library was constructed as a phage library in the Zap Express System (Stratagene). This library was then used to carry out an immunoscreening employing a serum pool composed of 25 VZV-reactive human serum. The DNA of clones which were assessed as positive were converted into circular forms, sequenced and assigned to corresponding regions of the VZV sequence. Via this method, it was possible to isolate an immunoreactive clone which expressed AA12-235 (SEQ ID NO: 7) of ORF23. No expression product for this reading frame had previously been reported in the VZV system. However, it is known from studies of homology between VZV and HSV that ORF23 corresponds to HSV1 UL36 (A. J. Davison & J. E. Scott. (1986), J. Gen. Virol. 67, 1759-1816). However, at 116 AA, the corresponding herpes simplex virus gene product is substantially shorter and also does not exhibit any marked homology. It had not previously been possible to demonstrate any immunoreactivity (of human sera) to either the gene product of VZV ORF23 or the gene product of HSV UL36. On the basis of the above results, the ORF23 gene product (VP26) constitutes a possible candidate for a diagnostic test method. As a consequence, both the entire ORF23 and the N-terminal truncated region were subcloned into vector pMAL-c2. This resulted in the constructs pMAL-VP26 and pMAL-VP26\*. These constructs were sequenced in an overlapping, bi-directional manner. The sequence obtained does not display any

differences as compared with the published sequence (A. J. Davison & J. E. Scott. (1986), J. Gen. Virol. 67, 1759-1816). Expression of these constructs showed that while it was possible to express the truncated protein stably this was not the case with the whole protein. The pMAL-VP26\* product gave a positive immunoreaction with the serum pool (see above). The immunoreactivity also was confirmed after the VZV-specific DNA fragment had been subcloned from vector pMAL-VP26 into vector pQE30 and expressed in the pQE system. It was therefore possible to rule out any possible false-positive assessment arising from the MBP fusion moiety.